



Integrated System Solutions for Naval Vessels



Project Management · Design · Engineering · Electrical Platform Systems · Electrical Propulsion Systems · Cable Network · Power Supply · Special Systems · Test and Trials · Logistic Support

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**SAM
Electronics**

an  communications company

Integrated System Solutions for Naval Vessels

System Competence for Advanced Solutions

We are one of the leading companies for providing Integrated System Solutions for Electrical Platform Systems on naval vessels. Our scope covers the planning, design, manufacturing and integration of the electrical platform system on a turn key basis.

We are prepared to enter into contractual partnerships with shipyards in order to provide the required technical support and know-how for achieving the overall project goal concerning technical performance, time schedule and costs. Our competence on these particular areas was demonstrated by participation in all major projects of the German Navy during the last two decades.

Coordination

Effective coordination of the Electrical Platform System with ship related interfaces and other systems is crucial for successful design and engineering of the entire project. We take care for the following coordination work:

- Coordination of cable tray routing, deck and bulkhead penetrations etc.
- Analysis of all applicable rules and regulations and establishment of design criteria in order to achieve design compliance
- Definition of mechanical interfaces for equipment foundations etc.
- Definition of electrical interfaces to all related platform systems
- Weight and space optimization / control of equipment and cable plant

Design / Engineering

The Electrical Platform System (EPS) is an essential part of the ship and the design has to comply with all requirements applied to the vessel in order to achieve the contracted performance and to provide the desired functionalities. Therefore the design of the EPS has to be made in close cooperation with the shipyard and its subcontractors. We have established the know-how and experience to coordinate and interface all electrical systems and subsystems to achieve the technical goal. Our design / engineering services are covering:

- Basic layout of the electrical platform system according to applicable naval rules/standards and under consideration of aspects for system reliability, availability and maintainability
- Electrical integration and interfacing of shipyard furnished equipment
- Development of state-of-the-art equipment and components according to the actual project requirements
- Design of subsystems and equipment under consideration of shock, vibration, EMI/EMC and further environmental requirements
- Design of complex cable network systems via CAD tools
- Aspects for EMI / EMC compliant design will be taken into account by routing according to cable categories etc.
- Design of innovative switchboard and power management concepts



Cable installation



Frigate F123



Frigate F124



Corvette K130

Project Management

The success of a project depends to a high degree on professional project management and monitoring. Therefore the overall project management will be assigned to an experienced project manager who is embedded into a project team with full responsibility for proper fulfillment of a contract. The major tasks of the project team are:

- Counterpart of the shipyard for project related matters
- Project management and control
- Monitoring of contract compliance regarding technical and commercial matters
- Definition of work packages, technical requirements and work flow
- Project reporting
- Schedule control
- Cost control

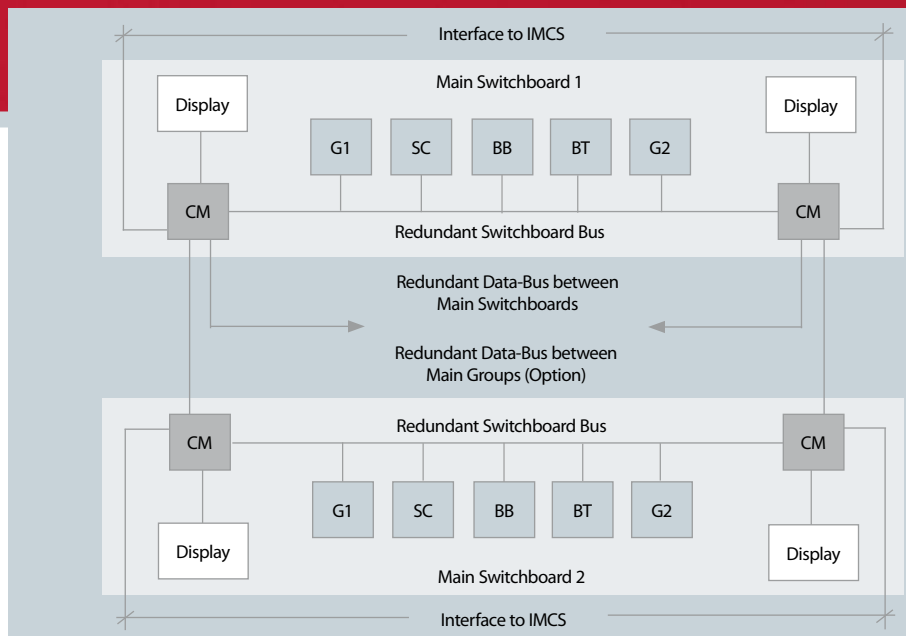
Acceptance

Acceptance tests are regarded as an essential part of the proper fulfillment of a contract and therefore we provide the following services under our contractual responsibility:

- Definition of test procedures
- Factory acceptance tests for equipment and components
- Harbour acceptance tests for all delivered systems
- Sea acceptance tests for all delivered systems
- Environmental tests of equipment, e.g. for shock, vibration, EMI/EMC etc., if contractually required



Task Force Ship (EGV 702)



Structure of the innovation switchboard concept

Logistics

Successful operation of the vessel requires back up by logistic support over its entire life time. We provide:

- Technical documentation according to navy standards
- Spare part concepts with associated services for codification etc.
- Training of crews and maintainers
- Worldwide service of the supplies

Production

We are certified to DIN EN ISO 9001: 2008. Quality, performance and reliability of our production is oriented towards the stringent quality standards of the international maritime industry as well as the high demands of our customers relating to product benefits.



Main switchboard for naval vessels



Frigate F125



OPV Malaysia

Integrated System Solutions for Naval Vessels

People · Technology · Solutions



Headquarters Hamburg

Our Competence

As an internationally-renowned systems house, we are a leading partner of naval shipyards worldwide. Our competence is based on more than 100 years' experience with the establishment of widely recognised brand names such as AEG, ATLAS and DEBEG.

Operating from headquarters in Hamburg and assisted by a worldwide network of subsidiaries, associated companies and agents, we provide innovative high technology solutions and

products designed to meet the most advanced requirements for naval vessels of all classes. Our competence is demonstrated by participation in the following building programs of the German Armed Forces:

- Frigate F123
- Frigate F124
- Corvette K 130
- Task Force Ship (EGV 702) - Batch 1
- Frigate F125
- Task Force Ship (EGV 702) - Batch 2

Your Advantage

As an established partner of the worldwide shipbuilding industry, we are typically involved in the preliminary design stage of projects. With this experience we ensure that overall project costs are minimized while providing total functionality of all systems and components according to contract requirements. This proven expertise is based on extensive involvement in many differing projects for both naval and commercial applications during the last two decades.

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